



City of Kalispell Public Works Department

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MEMORANDUM

20 June 2003

To: Chris A. Kukulski, City Manager
CC: Mayor and City Council

From: James C. Hansz, P.E., Director of Public Works/City Engineer

Subject: Kalispell WWTP Nitrogen Discharge to Ashley Creek

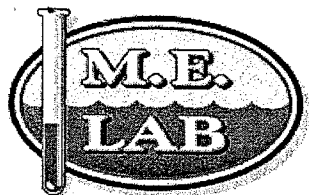
On 19 June 2003, Councilman Atkinson visited my office to share information with me that had caused him some concern. He indicated that in a recent conversation with Commissioner Gipe the commissioner was somewhat agitated about what he (Gipe) perceived to be an unwarranted high regard for the City and its wastewater operations. Councilman Atkinson indicated the commissioner had referred to the City polluting Ashley creek with nitrate discharges that far exceed the allowed limit and had further implied some ad hoc testing had been done on the plant discharge water that confirmed this. Needless to say this got my attention, primarily because there is no such permit performance standard for our plant and we are unaware of any effluent testing except for that which we do to remain in compliance with our operating permit. I passed this on to the plant manager, Joni Emrick, and what she has reported to me confirms the incompetence, if not the motive, of whomever is feeding this false information to the commissioner.

Briefly, the plant is operating under a State issued discharge permit that involves testing for several different things but stipulates four key parameters for effluent quality to prevent harm to living organisms, primarily fish, in the receiving water, i.e. Ashley Creek and, by extension Flathead Lake. Those parameters are temperature, pH, dissolved oxygen and ammonia nitrogen. This last component, ammonia nitrogen, is the most critical because it is highly toxic to fish. Our plant is specifically designed to reduce ammonia by converting it to nitrate. We then further reduce the nitrate by recycling a significant portion of the treated effluent through the plant where the nitrogen is eventually released to the atmosphere as nitrogen gas. The final measure of

nitrogen discharged is the sum of all nitrogen, N_T , in the effluent, and there is a permit limit for this total. The Kalispell plant is limited to a total discharge of 890 pounds per day of nitrogen to Ashley Creek. We have never violated our permit requirements. In fact, for the past three years, 2000, 2001, and 2002, our discharge has been 154, 187 and 215 pounds per day, respectively. Said another way, our total nitrogen discharge has varied from 17% to 24% of that allowed by our permit. It is because of the high quality of our plant performance that the Kalispell WWTP is acknowledged by the State of Montana and USEPA to be a critical part of the solution to pollution and not part of the problem.

→ Finally, the allegation of pollution appears to center on nitrate, a compound that if present in drinking water can be a problem for infants. We test our effluent for this each month. The results show that annual average nitrate concentrations in plant effluent have varied from 3.27 ppm in 1993 to 9.57 ppm in 2002, changing slightly through the year as the temperature of the water changes. The USEPA drinking water standard is 10 ppm. While our wastewater effluent nitrate level is below USEPA drinking water standards, I would not recommend it for regular consumption. On the other hand, it may be a healthier alternative than the current beverage of choice for whoever began this malicious whispering campaign against one the finest wastewater treatment plants operating in the United States.

Please share this information with Councilman Atkinson.



ANALYTICAL REPORT

Montana Environmental Laboratory LLC

Prepared for:

Montana Mapping Assoc.
115 Valley View Drive
Kalispell, MT 59901

ORDER#: G0307809

Location: Ashley Creek-Kal. WW Discharge **Matrix:** DRINKING WATER **Date Collected:** 09/15/2003
PWS ID: **Date Received:** 09/15/2003
Lab ID: 0307809-01

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>MDL</u>	<u>MCL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Nitrate	8.51	mg/L	0.01	10	353.2	09/16/2003	JWH

MCL = Maximum Contaminant Limit ND = Not Detected
MDL = Minimum Detection Limit NR = Not Regulated

MEL REVIEW: _____